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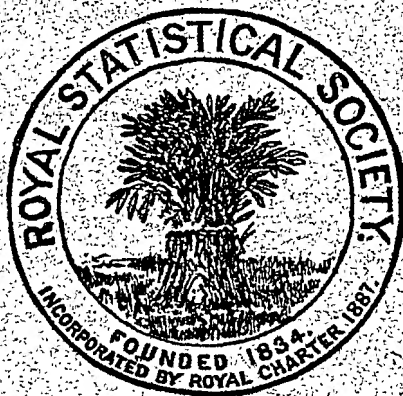
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SETTLEMENT
AND
AGRICULTURAL DEVELOPMENT
OF THE
NORTH-WEST PROVINCES OF CANADA.

BY
ERNEST H. GODFREY.



REPRINTED FROM THE JOURNAL OF THE ROYAL STATISTICAL SOCIETY
Vol. LXXI, Part II (30th June, 1909).

(PRINTED FOR PRIVATE CIRCULATION.)

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Settlement and Agricultural Development of the North-West

Provinces of Canada. By ERNEST H. GODFREY.

OUT of that vast area, once known vaguely as the Canadian North-West, have recently been carved the two new provinces of Saskatchewan and Alberta, which, with Manitoba, now comprise the three North-West Provinces, each a federal constituent of the Dominion. The opening up of new fertile lands in these provinces by the construction of railways, coupled with a policy of vigorous advertisement, has, since the commencement of the twentieth century, attracted settlers in annually increasing numbers from other parts of Canada, from the United States, from the British Isles, and from the continent of Europe.

During the last seven years immigration into Canada has proceeded with tidal force and regularity. Every year in this period the number of immigrants has exceeded that of the previous one, as is shown by the following table, which, for each of the fiscal years 1901 to 1907, gives the number of immigrants into Canada, with the numbers destined for different parts of the Dominion, whether Eastern Canada, British Columbia, or the North-West Provinces. The destination of a small proportion of the total number is not shown.

Year.	Eastern Canada.	British Columbia.	North-West Provinces.	Not Shown.	Totals.
1901.....	18,568	2,600	25,414	2,567	49,149
'02.....	20,927	3,483	39,621	3,348	67,379
'03.....	37,715	5,378	83,433	1,838	128,364
'04.....	46,936	6,994	75,308	1,093	130,331
'05.....	63,605	6,008	74,676	1,977	146,266
'06.....	84,339	12,406	90,553	1,766	189,064
'07 (to 31st March)	57,483	13,650	53,139	395	124,667
'07 (to 31st December)	119,829	26,573	88,751	175	235,328
Totals	449,402	77,092	530,895	13,159	1,070,548

Note.—The above periods are those of the Canadian fiscal year, which, from 1901 to 1906, ended on 30th June. In 1906, the fiscal year was changed to end on 31st March, and the last two periods are therefore for the nine months ended 31st March and 31st December, 1907.

Of the large total of 1,070,548 immigrants who have entered Canada since 1901, 530,895, or 49.59 per cent., have proceeded to the North-West Provinces, 449,402, or 41.98 per cent., to Eastern Canada, and 77,092, or 7.20 per cent., to British Columbia, leaving 13,159, or 1.23 per cent., not shown.

Manitoba has been a federal province of the Dominion since 1870. Saskatchewan and Alberta were organised as federal provinces by Acts of the Dominion Parliament in 1905. The total area of the three provinces, including land and water, is officially computed to be 369,869,898 acres, the relative size of the provinces being as follows:—

Province.	Land.	Water.	Total.
	Acres.	Acres.	Acres.
Manitoba	41,169,098	6,019,200	47,188,298
Saskatchewan	155,092,480	5,323,520	160,416,000
Alberta	160,755,200	1,510,400	162,265,600
Totals	357,016,778	12,853,120	369,869,898

Each of the two new provinces of Saskatchewan and Alberta is, therefore, considerably larger than either France or Germany, and together they are larger than the combined areas of Great Britain, France and Germany. Manitoba, the smallest of the three, is nearly twice the size of the combined areas of Belgium, Holland and Denmark.

As the facts now noted are derived largely from the census of population and agriculture which was taken for the three provinces in 1906,¹ a brief description of the methods adopted in connection therewith may not be out of place. In 1905 the Census and Statistics Office of the Department of Agriculture was created by Act of Parliament and was charged with the duty of taking a decennial census of the whole of the Dominion starting from 1911. This census, as in the case of previous censuses, will be of comprehensive character, including not only the enumeration of the people, but also an account of the whole of the resources and activities of the country and of all the natural products of land and water. In addition to this decennial census for all Canada, the Act provided for a quinquennial census of the population and agriculture of the North-West Provinces, starting from 1906; so that, in effect, the progress of settlement in the North-West Provinces will be recorded statistically every five years, intervals not too short considering the prospect there is of continuously rapid development through immigration. Provision is also made in the Act for supplemental or inter-censal inquiries as these may be deemed necessary by the Minister of Agriculture.

¹ For details see "Report on the Census of Population and Agriculture of the North-West Provinces, 1906." Ottawa, 1907.

Accordingly, the first quinquennial census of the North-West Provinces was carried out as for 24th June, 1906, being effected on the *de jure* system by house to house enumerators acting under three commissioners appointed from the staff of the Census Office. Two schedules were employed for the enumeration, one for recording the human population and the numbers of agricultural live stock (horses, cattle, sheep and pigs), and the other for recording the acreage and yield of crops. Particulars of the actual acreage of crops were taken for the years 1905 and 1906, and of the actual yield of the principal field crops for the season of 1905. The yield of crops in 1906 was subsequently estimated from returns made by correspondents whose names were selected from the enumeration schedules; so that the complete agricultural results of the census include acreage and produce statistics for the two seasons 1905 and 1906, as compared with those of the season of 1900 which were collected at the general census of 1901.

For the purposes of the North-West census of 1906 the three provinces were divided into 22 districts, corresponding as nearly as possible with the Parliamentary electoral divisions, and these were sub-divided into convenient enumeration areas. There were altogether 602 enumeration area units, comprising cities, towns, groups of townships, Indian reserves, and other areas, and 673 enumerators were employed in the work. The results of this census enable us to measure the progress which has been made in the settlement and agricultural development of the three provinces during the five years that have elapsed since the general census of 1901.

The population of the three provinces was ascertained to be 808,863, an increase of 389,351 over the population in the provinces as recorded in 1901. The comparative figures for each province are given in the following statement:—

Provinces.	1901.	1906.	Increase.	Increase per Cent.
Manitoba	255,211	365,688	110,477	43.28
Saskatchewan	91,279	257,763	166,484	182.39
Alberta	73,022	185,412	112,390	153.91
Totals	419,512	808,863	389,351	92.81

Thus the population of the three provinces has all but doubled during five years, whilst the increase in the population of the two new provinces of Saskatchewan and Alberta represent percentage ratios of over 182 and 153 respectively.

As to what shall prove to be the future racial character of the population in the new provinces is a question of importance both to Canada and to the Empire. The Dominion is now throwing its doors wide open to new comers from every part of the world. All moral, healthy and able-bodied persons are welcomed as Canadian citizens, and every effort is made to exclude the morally and physically unfit. Nevertheless, the process of assimilation is being

watched with some anxiety, and it is natural that strong efforts should be directed towards securing the predominance of settlers of Anglo-Saxon blood. The following figures indicate the original nationality of the settlers in the three provinces in 1901, and the increase by nationality apparent from the census of 1906 :—

Birthplace.	Census of 31st March, 1901.	Census of 24th June, 1906.	Increase of 1906 over 1901.
Canada.....	277,755	444,366	166,611
British Isles.....	50,440	122,063	71,623
British possessions.....	689	1,499	810
United States.....	20,799	90,738	69,939
European and other countries.....	68,383	148,292	79,909
At sea and not given.....	1,446	1,905	459
Totals.....	419,512	808,863	389,351

These figures show how large a proportion of Canadian-born persons migrated from the eastern to the new western provinces between the years 1901 and 1906; for the increase of 166,611 in the number of Canadian-born persons represents a percentage of 60. Of non-Canadian immigrants into the provinces those from the United States, with their contiguous boundary, have naturally arrived in largest volume, and the increase as between the two years represents a ratio of 336 per cent. In the case of the British Islands the immigration, as shown by the birthplaces, represents an increase of 142 per cent., and in that of European and other countries of 117 per cent. A certain proportion of the persons enumerated as Canadian-born were, of course, born in the three provinces during the five years, though their parents may have been of British or of American or other foreign nationality. In 1906 the number of persons born in European and other countries represented not more than about 18 per cent. of the whole; so that there appears at present little chance of the English-speaking element losing its power of absorption. The foreign, as distinct from the Anglo-Saxon element, is, with the exception of certain religious communities like those of the Doukobors and a few German colonies, distributed evenly amongst the British and American settlers, and many of the new settlers speaking foreign languages are already seeking during the winter to acquire a working knowledge of English.

The following table shows the sexual distribution of the population in the North-West Provinces for the years 1901 and 1906 :—

Province.	1901.		1906.	
	Males.	Females.	Males.	Females.
Manitoba.....	138,504	116,707	203,183	160,505
Saskatchewan.....	49,431	41,843	152,791	104,972
Alberta.....	41,019	32,003	108,283	77,129
Totals.....	228,954	190,558	466,257	342,606

It is evident, as might be expected from the nature of the case, that males outnumber females to a considerable extent. For the three provinces together, males in 1906 are more numerous than females by 123,651, or 36 per cent. In 1901 the excess was 38,396, or 20 per cent.; so that the disproportion was considerably increased by the stream of immigration during the five years. Taking the provinces separately, in Manitoba the excess of males over females is not so marked, being 21,797 in 1901, or 19 per cent., and 44,678 in 1906, or 27 per cent. In the two newer provinces, however, the disproportion between the sexes is greater. In Saskatchewan, in 1901, males outnumbered females by 7,583, or 18 per cent.; in 1906 by 47,819, or 45 per cent. In Alberta males were more numerous by 9,016, or 28 per cent.; in 1906 the excess was 31,154, or 40 per cent.

Every emigrant ship takes out a proportion of women to rejoin husbands or other male relatives who have preceded them for the purpose of making a home; and as settlement proceeds the disproportion between the sexes in Saskatchewan and Alberta will doubtless, as in the case of Manitoba, be reduced. If, however, the present rate of immigration should be maintained for any lengthened period, the prospect of any near equalization in the numbers of the two sexes is yet remote.

An indigenous Indian population is scattered up and down Canada in specially set-apart reserves. Those Indians and half-breeds that were in the North-West Provinces at the time of the census are included in the total of 808,863; but the population of the Indian reserves in the three provinces in 1906 was 18,629, as compared with 19,247 in 1901, a net decrease of 618 during the five years. In 1901 the Indian population represented 4.58 per cent. of the total population in the three provinces. Owing to the large subsequent immigration of white settlers this proportion was reduced to 2.30 per cent. at the census of 1906.

Not less remarkable than the rapid increase of settlement upon agricultural land has been the growth during five years of urban communities, and the census reveals its extent. The population of cities, towns and incorporated villages (the latter being generally considered urban as contrasted with the farming population in parishes and townships) was, in 1901, for the three provinces, 103,691. In 1906 this number had increased to 244,585, a growth of 140,894, or 135 per cent., in five years. The ratio of the urban to the total population was, for the three provinces, 30.23 per cent. in 1906, as compared with 24.72 per cent. in 1901. The following table shows the population of the principal cities of the North-West Provinces at the two census periods of 1901 and 1906:—

Province and City.	1901.	1906.	Increase.
Manitoba—			
Winnipeg	42,340	90,153	47,813
Brandon	5,620	10,408	4,788
Saskatchewan—			
Regina	2,249	6,169	3,920
Moosejaw	1,558	6,249	4,691
Saskatoon	113	3,011	2,898
Prince Albert	1,785	3,005	1,220
Alberta—			
Edmonton	2,626	11,167	8,541
Calgary	4,091	11,967	7,876
Lethbridge	2,072	2,313	241
Medicine Hat	1,570	3,020	1,450
Wetaskiwin	550	1,652	1,102

The rate of increase during the five years of six of these cities is over 100 per cent. ; in three cases it is over 200 per cent., and in three cases it is over 300 per cent. The most remarkable expansion is at Saskatoon, which, situated on the Saskatchewan River and at the convergence of three important railways, is destined to attain still greater proportions at no distant date. This place in 1901 possessed only 113 inhabitants, but in 1906 the population was 3,011, an increase of 2,898.

A further indication of the rapid urban development is given by a recent postal census of manufactures. The value of the manufactured products of eight of the principal cities in the North-West Provinces in 1905, as compared with 1900, is shown as follows²:—

City.	1900.	1905.	Increase.
	£	£	£
Winnipeg	1,770,462	3,900,676	2,130,214
Brandon	111,232	431,095	319,863
Moosejaw	27,748	100,039	72,291
Prince Albert	25,397	100,181	74,784
Edmonton	50,091	193,875	143,784
Calgary	123,173	473,346	350,173
Lethbridge	6,144	30,018	23,874
Strathcona	36,432	121,803	85,376

Agricultural live stock and products show the same remarkable expansion since the beginning of the century. Farms throughout the three provinces have more than doubled in number, increasing from 54,625 in 1900 to 122,398 in 1906. In the latter year there were 36,141 farms in Manitoba, 55,971 in Saskatchewan, and 30,286 in Alberta. Inhabited townships increased from 2,370 in 1901 to 4,365 in 1906. The following table shows the position

² The table is compiled from *Manufactures of Canada*, Bulletin II of the Census and Statistics Office, Ottawa, 1907, the Canadian currency being converted at the rate of \$1.86½ to the £ sterling.

with regard to the live stock of the three provinces at the two periods of 1901 and 1906 :—

	1901.	1906.	Increase.
	No.	No.	No.
Horses.....	340,329	682,919	342,590
Cattle	942,625	1,944,598	1,001,973
Sheep	182,616	304,531	121,915
Pigs.....	200,875	439,048	238,673

In each of the three provinces there were large increases of all descriptions of live stock, except as regards sheep in Manitoba, where there was a decline in number to the extent of 489. In Saskatchewan, sheep increased by 48,193, and in Alberta by 74,211.

Expansion in the acreage under the three principal cereals may next be shown :—

Provinces.	1900.	1905.	1906.
	Acres.	Acres.	Acres.
North-West Provinces—			
Wheat.....	2,495,466	3,941,369	5,062,493
Barley.....	162,557	370,850	522,734
Oats.....	833,390	1,697,170	2,309,439
Manitoba—			
Wheat.....	1,965,193	2,417,253	2,721,079
Barley.....	139,660	249,218	336,986
Oats.....	573,848	779,279	931,282
Saskatchewan—			
Wheat.....	487,170	1,376,281	2,117,484
Barley.....	11,798	40,732	77,573
Oats.....	141,517	606,346	901,646
Alberta—			
Wheat.....	43,103	147,835	223,930
Barley.....	11,099	80,900	108,175
Oats.....	118,025	311,545	476,511

These figures reveal not only the extent of the great increase of acreage as between the year 1900 and the years 1905 and 1906, but also the rapidity with which development is taking place, as shown by a comparison of the two years 1905 and 1906. Thus, in the two newer provinces the wheat acreage has increased in a single year by over 50 per cent.; barley by 90 per cent. in Saskatchewan and 33 per cent. in Alberta; oats by 49 per cent. in Saskatchewan and 53 per cent. in Alberta. Of these three cereals, wheat and oats are the most important crops in the North-West, as, indeed, they are throughout all Canada. Their production in 1906 in the three provinces was almost equal, wheat amounting to 110,586,824 bushels, with an average yield of 21.84 bushels per acre and oats to 110,569,628 bushels with an average yield of 47.87 bushels per acre. The production of barley was 18,684,609 bushels, the yield being at the average rate of 35.74 bushels per acre.

The census of 1906 afforded an opportunity of obtaining exact statistics as to the acreage and yield of wheat on land which has

been summer fallowed, as compared with that obtained from land not so treated. Summer fallowing in Canada consists in ploughing the land in late spring or early summer, or subsequently ploughing, harrowing, or otherwise tilling it and leaving it unseeded in preparation for wheat or other crop usually sown in the autumn of the same year or in the spring of the year following. The concluding table shows the acreage of fall or winter wheat and of spring wheat upon summer-fallowed land and upon other land, together with the average yield per acre for the three provinces in 1906. It will be noticed that the superiority of the yield from the summer-fallowed land is very marked.

Variety of Wheat.	On Summer Fallow.		On Other Land.	
	Acres.	Bushels per Acre.	Acres.	Bushels per Acre.
Fall or winter	13,889	27.72	71,310	25.80
Spring	1,130,685	26.02	3,846,609	20.52

A tendency of western farming on virgin soils is to sow successive white crops regardless of inevitable decrease of fertility. Summer fallowing is at any rate a mitigation of the evil, though complaint is sometimes made that this practice retards the ripening of the grain by inducing rankness of growth, thus exposing it to the risk of early frosts.

The total cultivated area of the three North-West Provinces in 1906 represented only about 2.33 per cent. of the total land surface of 357,016,778 acres. Only 120,484,455 acres of this total were in 1906 surveyed for settlement. Of the surveyed land only 30,502,927 acres were then occupied as farms and ranches. The area in crops represented only 28 per cent. of the land occupied as farms, and only 7 per cent. of the land surveyed. In Manitoba about one-tenth of the land is under cultivation; in Saskatchewan about 1 acre in 48 acres, and in Alberta about 1 acre in 177 acres. These proportions are sufficiently suggestive as to future possibilities in the settlement and agricultural development of the three fertile provinces of North-West Canada alone, without counting the large areas of unbroken land in the other six provinces of the Dominion.

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